U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2005-136-EA

CASEFILE/PROJECT NUMBER (optional): COC62053

PROJECT NAME: Williams Ryan Gulch 32-17

LEGAL DESCRIPTION: T2S, R98W, Sec. 17, 6th Principle meridian

APPLICANT: Williams Production RMT Company

ISSUES AND CONCERNS (optional): none

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action: The applicant proposes to construct a well pad with dimensions of 300 x 200 feet (1.38 acres). Total area disturbed to construct the pad, including overburden will be approximately 1.62 acres. In addition, the applicant proposes to construct approximately 90 x 40 feet (0.08 acres) of new road to access the proposed well pad. Total disturbed area to accommodate both the well pad and access road will equal approximately 1.7 acres.

The proposed location for the well pad and access road would be in the Ryan Gulch region of the resource area. The elevation at the proposed location for the well pad and access road is 6,545 feet. Dominant vegetation consists of mature basin big sagebrush (*Artemisia tridentata* subsp. *tridentata*). Well density at the proposed location is <1 producing wells per square mile, while road density equals approximately 2.78 miles of road per square mile.

Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present. Access roads and surface disturbing activities will conform to standards outlined in the USGS publication (1978) Surface Operation Standards for Oil and Gas Development.

Produced waste water could be confined to the pit for a period of 90 days after initial production. During the 90 day period the required waste analysis will be submitted for the Authorized Officer's approval, pursuant to Onshore Oil and Gas Order No. 7 (NTL-2B). A permanent steel tank will be installed in the ground next to the production facilities to contain any produced water for the duration of the well.

Water based reserve pit fluids will be backfilled within one year of construction or by the end of the succeeding summer to allow for evaporation of fluids unless an alternative method of disposal is approved. The backfilling of the reserve pit will be done in such a manner that the mud and associated solids will be confined to the pit and not squeezed out and incorporated into the surface materials. There will be a minimum of three feet of cover (overburden) on the pit. All remaining cutting will be solidified and buried in place, or disposed of in an approved manner. The stockpiled ground cover will be evenly distributed over the disturbed areas. The recommended seed mix to be used on all disturbed areas will be determined by the White River Field Office. The dirt contractor will be provided with an approved copy of the surface use plan.

Chemical pesticides or any other control agent which represents a potential soil, air or water pollutant will not be utilized for any purpose on public lands without express written authorization from the Authorized Officer of the BLM.

The Operator or his contractor will notify the BLM, White River Field Office, (970) 878-3800, forty-eight (48) hours before starting reclamation work that involves earth-moving equipment and upon completion of restoration measures.

During the environmental assessment process for this area, cultural resource clearance inventories were prepared and have been submitted under separate cover dated 10 December 2004 by Grand River Institute. Paleo, raptor and threatened and endangered species surveys have been done for the proposed location.

The anticipated start date is 1 June 2005, and the anticipated duration of construction related activities is 30 days.

No Action Alternative: The well would not be permitted; there would not be any surface disturbance.

NEED FOR THE ACTION: To respond to request by applicant to exercise lease rights and develop potential hydrocarbon reserves.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Pages 2-5 thru 2-6

Decision Language: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: The proposed actions are not located within a twenty mile radius of any special designation air sheds or non-attainment areas. Construction of well pad and access road will have little effect on air quality in the area with exception to dry periods when gusty winds may temporarily increase fugitive dust levels. Overall, construction operations should not greatly compromise National Ambient Air Quality Standards (NAAQS) for particulate mater which calls for a maximum 24-hour average to be less than or equal to 150 $\mu g/m^3$.

Environmental Consequences of the Proposed Action: Temporary reductions in vegetal cover resulting from construction activities will leave soils temporarily exposed to eolian processes. During dry and windy periods, air quality may be compromised due to increased levels of fugitive dust originating from the exposed construction area. However, airborne particulate matter should not exceed Colorado air quality standards on an hourly or daily basis.

Environmental Consequences of the No Action Alternative: None

Mitigation: Revegetate surfaces disturbed during construction. Stockpiled soils must be covered and adequate ground cover must be applied (e.g. woody debris) to minimize surface exposure to eolian processes. Dust abatement (spreading water) will be required during dry periods.

CULTURAL RESOURCES

Affected Environment: The proposed well pad location has been inventoried at the Class III (100% pedestrian) level (Conner et. al. 2004, Compliance Dated 12/14/2005) with no cultural resources identified in the inventoried area.

Environmental Consequences of the Proposed Action: There would be no new impacts to any known cultural resources under the proposed action.

Environmental Consequences of the No Action Alternative: There would be no new impacts to cultural resources under the No Action Alternative.

Mitigation: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The noxious weeds houndstongue (*Cynoglossum officinale*) and mullein (*Verbascum thapsus*) have been found in proximity to the proposed location. The invasive alien cheatgrass (*Bromus tectorum*) occurs on unrevegetated areas of soil disturbance throughout the area.

Environmental Consequences of the Proposed Action: The principal impact to vegetation will be complete removal of vegetation on the well site and the earthen disturbance associated with it. In terms of plant community composition, structure and function, the principal negative impact over the long term would occur if invasive species or noxious weeds are allowed to establish and proliferate on the disturbed area resulting from pad and access road construction.

Environmental Consequences of the No Action Alternative: There will be no change from the present situation.

Mitigation: Promptly recontour and revegetate all disturbed areas with Native Seed mix # 5. The operator will monitor the right of way for a minimum of five years post construction to detect the presence of noxious and invasive species. The operator will be responsible for

eradication of noxious weeds and cheatgrass on the right of way using materials and methods authorized in advance by the Field Manager.

Native Seed Mix # 5			
Seed Mix #	Species (Variety)	Lbs. PLS per Acre	Ecological Sites
5	Basin Wildrye (Magnar) Western wheatgrass (Rosanna, Arriba) Bluebunch wheatgrass (Secar) Thickspike wheatgrass (Critana) Fourwing saltbush (Wytana) Alternates: Utah sweetvetch, globemallow	2 3 1 2 1	Foothill Swale, Sandy Swale, Swale Meadow

MIGRATORY BIRDS

Affected Environment: The proposed action is encompassed largely by basin big sagebrush with low densities of greasewood scattered throughout. Herbaceous ground cover is comprised of western wheatgrass, basin wild rye, Sandberg bluegrass and squirreltail. Blue-gray gnatcatcher, Brewer's sparrow and Vesper's sparrow are associated with these habitats although these shrublands typically support few nesting birds. There are no species of high conservation interest associated with this project.

The project area is located in the Ryan Gulch drainage and open water and wetland areas that may support or attract waterfowl occur within this drainage. The development of reserve pits in the Ryan Gulch drainage that contain fluids that may pose a risk to migratory birds may also attract waterfowl for purposes of resting and/or foraging.

Environmental Consequences of the Proposed Action: It is unlikely that well pad and road construction would have any negative impacts on nesting activities. Moreover, the proposed project area occurs along an existing road and in areas of degraded migratory breeding bird habitat with low shrub densities. These habitats typically support little, if any nesting birds.

It has recently been brought to BLM's attention that in certain situations migratory waterfowl (i.e., teal and gadwall) have contacted oil-based drilling fluids stored in reserve pits during or after completion operations and are suffering mortality in violation of the Migratory Bird Treaty Act. The extent and nature of the problem is not well defined, but is being actively investigated by the federal agencies and the companies. Until the vectors of mortality are better understood, management measures must be conservative and relegated to preventing bird contact with toxic fluids that may result in bird mortality.

Environmental Consequences of the No Action Alternative: There would be no affect on migratory birds or their habitats under the no action alternative.

Mitigation: It will be the responsibility of the operator to prevent use by migratory birds of reserve pits that store or are expected to store fluids which may pose a risk to such birds (e.g.,

migratory waterfowl, shorebirds, wading birds and raptors) during completion and after completion activities have ceased. Methods may include netting, the use of bird-balls, or other alternative methods that effectively prevent use and that meet BLM approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to prevent use two weeks prior to when completion activities are expected to begin. The BLM approved method will be applied within 24 hours after completion activities have begun. All lethal and non-lethal events that involve migratory birds will be reported to the Petroleum Engineer Technician immediately.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no threatened or endangered animals that inhabit or derive important benefit from these sites.

Environmental Consequences of the Proposed Action: The proposed action would have no conceivable influence on special status animals or associated habitat.

Environmental Consequences of the No Action Alternative: The no action alternative would have no conceivable influence on special status animals or associated habitat.

Mitigation: None

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed action would have no effective influence on populations or habitat associated with special status species.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: Surface Water: Well 32-7 and access road is located in the Ryan Gulch catchment area (stream segment 16) which is a tributary to Piceance Creek (tributary to the White River). A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. The State has classified stream segment 16 of the White River Basin as "Use Protected" and further designated as beneficial for the following uses: Warm Aquatic Life 2, Recreation 2, and Agriculture. The antidegredation review requirements in the Antidegredation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For this reach, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 mg/l, pH = 6.5 - 9.0, Fecal Coliform = 2000/100 ml, and 630/100 ml E. coli.

Ground Water: The proposed well pad location is situated near the confluence of the mouth of an unnamed draw and Ryan Gulch. Local ground water may be encountered at this location during wet periods when water tables are elevated. In addition, deeper aquifers will be encountered during the drilling process.

Environmental Consequences of the Proposed Action: Construction of the access road and well pad will result in temporary exposure of soils to erosional processes. Removal of ground cover would likely increase erosive potential due to runoff and raindrop impact during storm events.

Soil compaction may occur in response to heavy equipment associated with the power-line re-route. Increased soil compaction will elevate potential for erosive overland flows which will introduce sediment into the stream channel.

Elevated water tables during wet periods (spring run-off) may result in ponding at the well pad. If ponding occurs, ground water being discharged onto the well pad will likely contact environmentally unfriendly substances leaked or spilled on the pad. Contaminated water from the well pad will likely deteriorate water quality down gradient the pad. Local ground water may also be contaminated if a spill results or pit contents are allowed to infiltrate soils. Adverse impacts on deeper ground water are possible as a result of cross aquifer contamination due to drilling.

Environmental Consequences of the No Action Alternative: None

Mitigation: To mitigate surface erosion due to removal of ground cover at the well pad, stockpiled soils must be covered and silt fences will be used on down gradient sides. Following construction flow deflectors and sediment traps (woody debris) will be redistributed over the

area along with Native Seed Mix #5. Also, in constructing the access road, proper drainage structures (drain dips, culverts) must be installed to reduce further surface erosion.

To mitigate contamination of local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of impermeable matting under equipment is suggested to intercept such contaminants prior to contacting soils.
Furthermore, all pits must be lined and all wastes associated with construction and drilling will be properly treated and disposed of. Finally, aquifers beneficial for human consumption and livestock encountered during the drilling process must be properly sealed to reduce potential for contamination.

Finding on the Public Land Health Standard for water quality: Water quality in stream segment 16 currently meets standards set by the state. The proposed action may result in increased run-off which would elevate sediment loads to Ryan Gulch. Spills or leaks of contaminants would reduce water quality downstream adversely affecting macroinvertabrates, vertebrates, and algae populations. However, following proper mitigation/reclamation procedures, water quality in segment 16 should not be greatly compromised.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The area adjacent to the proposed project area does not support riparian or wetland communities. Furthermore, riparian or wetland communities will not be directly involved or potentially affected by the proposed action.

Environmental Consequences of the Proposed Action: The proposed action would have no conceivable influence on riparian or wetland communities.

Environmental Consequences of the No Action Alternative: The no-action alternative would not have any conceivable influence on riparian or wetland communities.

Mitigation: None

Finding on the Public Land Health Standard for riparian systems: This project would have no conceivable potential for influencing riparian attributes addressed in the Standards.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC's, flood plains, prime and unique farmlands, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The proposed actions will not encounter any fragile soils. The following data is a product of an order III soil survey conducted by the NRCS. The accompanying table highlights important soil characteristics. A complete summary of this information can be found at the White River Field Office.

Soil Number	Soil Name	Slope	Ecological site	Salinity	Run Off	Erosion Potential	Bedrock
6	Barcus channery loamy sand	2-8%	Foothills Swale	<2	Slow	Moderate	>60

6-Barcus channery loamy sand (2 to 8 percent slopes) is a deep, somewhat excessively drained soil found on alluvial fans and in narrow valleys. It formed in alluvium derived from calcareous sandstone and shale. Areas are fan shaped, triangular, or elongated and are 20 to 100 acres. The native vegetation is mainly low shrubs and grasses.

Typically, the surface layer is pale brown channery loamy sand 6 inches thick. The upper part of the underlying material is light yellowish brown channery sand 10 inches thick, and the lower part to a depth of 60 inches or more is stratified, light yellowish brown and pale brown very channery sand and very channery loamy fine sand. The soil is calcareous throughout. In some areas the surface layer is channery fine sandy loam or channery sand.

Included in this unit are small areas of Glendive fine sandy loam and Havre loam. Also included are small areas of moderately deep Torriorthents and areas of soils that have a cobbly surface layer. Included areas make up about 15 percent of the total acreage.

Permeability of the Barcus soil is rapid. Available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion is moderate.

The potential plant community on this unit is mainly western wheatgrass, basin wild rye, Indian rice grass, and big sagebrush. Smaller amounts of needle and thread, rubber rabbit brush, fourwing saltbush, and winterfat commonly are also present in the potential plant community.

Environmental Consequences of the Proposed Action: Given the calcareous nature of the Barcus soils, dissolution of calcium carbonate will cause soil piping and gullying if drainage structures are not functioning properly. If left unattended piping and gully formation can cause substantial erosional problems. Removal of limited ground cover will also expose soils to erosional processes. Heavy traffic will increase soil compaction decreasing infiltration rates which in turn will increase potential for erosive overland flows.

Leaks or spills of environmentally unfriendly substances on or near the pad may contaminate soils hindering revegetation efforts. Soils unable to support a healthy plant community will be less cohesive (due to lack of root structure) and more vulnerable to erosional processes.

Environmental Consequences of the No Action Alternative: None

Mitigation: Comply with "Gold Book" surface operating standards for constructing well pad and access road. Revegetate all disturbed surfaces following construction with Native Seed Mix #5 of the White River Resource Area. Flow deflectors and sediment traps (woody debris) must also be utilized in attempts to mitigate erosive potential of overland flows.

To mitigate contamination of soils and local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of impermeable matting under equipment is suggested to intercept such contaminants prior to contacting soils.

Complete reclamation will follow abandonment of well pads. Access roads and well pads will be recontoured and 100% of disturbed surfaces will be revegetated with Native Seed Mix #5.

Finding on the Public Land Health Standard for upland soils: At the present time, soils in the vicinity of the proposed action exhibit infiltration and permeability rates that are appropriate to soil type, landform, climate, and geologic processes. The proposed actions will cause decreases in both infiltration and permeability rates due to soil compaction. However, the affected area is small and following mitigation/reclamation, no long term adverse environmental impacts relating to soil health are anticipated.

VEGETATION (includes a finding on Standard 3)

Affected Environment: Vegetation at the proposed well location is a mature stand of basin big sagebrush with a fairly sparse understory of grasses and forbs primarily due to big sagebrush dominance. The associated range site is a Foothill swale. The site is in an early seral stage.

Environmental Consequences of the Proposed Action: The proposed action will destroy all existing vegetation on about 1.75 acres. In terms of plant community composition, structure and function, the principal negative impact over the long term would occur if invasive species or noxious weeds are allowed to establish and proliferate on the disturbed areas resulting from pad and access road construction.

Environmental Consequences of the No Action Alternative: There will be no change from the present situation.

Mitigation: Promptly recontour and revegetate all disturbed areas with Native Seed mix # 5. The operator will monitor the right of way for a minimum of five years post construction to detect the presence of noxious and invasive species. The operator will be responsible for

eradication of noxious weeds and cheatgrass on the right of way using materials and methods authorized in advance by the Field Manager.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial)*:* Plant communities in the project are a meet the Standard and are expected to continue to meet the Standard following implementation of this action.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: There are no aquatic habitats directly involved or potentially affected by the proposed action.

Environmental Consequences of the Proposed Action: The proposed action would have no conceivable influence on aquatic wildlife or habitats.

Environmental Consequences of the No Action Alternative: The no-action alternative would not have any conceivable influence on aquatic wildlife or habitats.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): This project would have no conceivable potential for influencing aquatic wildlife or habitats addressed in the Standards.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The project area is located within mule deer severe winter range, which is typically used heavily by deer during the late winter months. One of the most important functions of these ranges is fulfilled during the early spring periods (late March through early May) when big game is most vulnerable to the influences of poor nutrition and extraneous energy demands (e.g., winter season recovery, last stages of gestation). There is no suitable nesting substrate available for raptors within 1,000 feet of the proposed project area.

Environmental Consequences of the Proposed Action: The proposed action will involve the disturbance/removal of basin big sagebrush and greasewood, species which do not constitute prime forage for big game. Reclamation of these sites would likely provide herbaceous ground cover which would be particularly beneficial to big game during the spring months.

The prevailing 2004/2005 winter weather conditions have been marked by unseasonably mild temperatures, including diminished snow pack and early emergence of herbaceous forage. Deer appear to be in remarkably good condition for this time of year. It is recommended that no condition of approval be applied to this action as these conditions meet the exception criteria for

the WRFO severe winter range timing limitation stipulation. By implementing reclamation measures recommended in the mitigation section, short and long term habitat integrity, particularly for big game, would remain essentially unaffected.

Environmental Consequences of the No Action Alternative: Failing to construct the well pad and access road would maintain the current condition and functional qualities of the project area.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): This project should have no conceivable influence on the condition or function of terrestrial habitats or wildlife associated with these habitats and therefore, would have no influence on continued maintenance of associated land health standards.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management	X		
Geology and Minerals			X
Hydrology/Water Rights		X	
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management		X	
Realty Authorizations		X	
Recreation			X
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

GEOLOGY AND MINERALS

Affected Environment: William's well #37-17-298 is located on Federal Oil and Gas lease COC-62053 in the area identified in the White River ROD/RMP as available for oil shale and sodium leasing. The surface geologic formation of the well location is alluvium with the Green River, Wasatch and Mesaverde formations being penetrated during drilling. The targeted zone is located in the lower Mesaverde/upper Mancos. Potential water, oil shale, sodium, and

gas zones will be encountered from surface to the targeted zone. Aquifers that will be encountered during drilling are the Perched in the Uinta, the A-groove, B-groove and the Dissolution Surface in the Green River formation. Sodium and oil shale resources will be encountered in the Green River formation. Potential Gas producing formations include the Wasatch and Mesaverde.

The Green River aquifer zones and the Wasatch are known for difficulties in drilling and cementing.

Environmental Consequences of the Proposed Action: Drilling and completion of this well may adversely affect the aquifers and the monitoring wells if there is loss of circulation or problems cementing the casing. The proposed cementing and completion procedure of the surface casing protects and isolates the aquifers in the Green River formation. Potential gas zones in the Wasatch will not be cover with cement which may allow the migration of gas along the annulus of the production casing. The Mesaverde will be covered with cement isolating the gas zones in the formation. Development of this well will deplete the hydrocarbon resources in the targeted formation.

Environmental Consequences of the No Action Alternative: None

Mitigation: The production casing should be cemented from TD to surface casing to cover the potential gas zones in the Wasatch.

PALEONTOLOGY

Affected Environment: The proposed well pad is in an area generally mapped as the Uinta Formation (Tweto 1979) which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources. However, a portion of the well pad may be located in Quaternary alluviums which are not particularly fossil bearing.

Environmental Consequences of the Proposed Action: If it becomes necessary to excavate into the underlying rock formation to level the well pad or excavate the reserve/blooie pit there is a potential to impact scientifically important fossil resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to fossil resources under the No Action Alternative.

Mitigation: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest

- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

RECREATION

Affected Environment: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project area has been most resembles a Recreation Opportunity Spectrum (ROS) class of Roaded Natural (RN). RN physical and social recreation setting may have modifications which range from being easily noticed to strongly dominant to observers within the area. However, from sensitive travel routes and use areas these alterations would remain unnoticed or visually subordinate. There is strong evidence of designed roads and/or highways. Structures are generally scattered, remaining visually subordinate or unnoticed to the sensitive travel route observer. Structures may include utility corridors, microwave installations and so on. Frequency of contact is moderate to high on roads and low to moderate on trails and away from roads. RN recreation experience is characterized by a moderate probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

Environmental Consequences of the Proposed Action: The public will lose approximately 3 acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere. If action coincides with hunting seasons (September through November) it will most likely disrupt the experience sought by those recreationists.

With the introduction of new well pads and roads, an increase of traffic could be expected increasing the likihood of human interactions, the sights and sounds associated with the human environment and a less naturally appearing environment.

Environmental Consequences of the No Action Alternative: No loss of dispersed recreation potential and no impact to hunting recreationists.

Mitigation: None.

VISUAL RESOURCES

Affected Environment: The proposed action would be located in a VRM class III area. The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Environmental Consequences of the Proposed Action: The proposed action is located adjacent to an existing road that could be traveled by a casual observer. The proposed action would be visible to a casual observer for a brief period of time. The proposed action would be on the same level as a casual observer with surrounding sagebrush vegetation with a backdrop of low ridges with scattered juniper. By painting all production facilities Juniper Green to blend with and mimic the surrounding vegetation, the level of change to the characteristic landscape should be less than moderate and the proposed action would not dominate the view of the casual observer. The standards of the VRM III classification would be retained.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: All above ground facilities shall be painted Juniper Green to blend with the surrounding environment.

CUMULATIVE IMPACTS SUMMARY: This action is consistent with the scope of impacts addressed in the White River ROD/RMP. The cumulative impacts of these activities are addressed in the White River ROD/RMP for each resource value that would be affected by the proposed action.

REFERENCES CITED:

Conner, Carl E., Curtis Martin, Barbara Davenport, and Nicole Darnell
2004 A Class III Cultural Resources Inventory for Eight Proposed Well Locations and Related Accesses in Rio Blanco and Garfield Counties, Colorado for Williams, Production RMT Company. Grand River Institute, Grand Junction, Colorado

Tweto, Ogden
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Nate Dieterich	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archaeologist.	Cultural Resources Paleontological Resources
Mark Hafkenschiel	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation, Rangeland Management
Brett Smithers	Natural Resource Specialist	Migratory Birds
Brett Smithers	Natural Resource Specialist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat collateral	Wastes, Hazardous or Solid
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Brett Smithers	Natural Resource Specialist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Nate Dieterich	Hydrologist	Soils
Brett Smithers	Natural Resource Specialist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2005-136-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to approve the proposed action with the mitigation measures listed below.

MITIGATION MEASURES:

1. Revegetate surfaces disturbed during construction. Stockpiled soils must be covered and adequate ground cover must be applied (e.g. woody debris) to minimize surface exposure to eolian processes. Dust abatement (spreading water) will be required during dry periods.

2. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

3. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

4. Promptly recontour and revegetate all disturbed areas with Native Seed mix # 5. The operator will monitor the right of way for a minimum of five years post construction to detect the

presence of noxious and invasive species. The operator will be responsible for eradication of noxious weeds and cheatgrass on the right of way using materials and methods authorized in advance by the Field Manager.

Native Seed Mix # 5			
Seed Mix #	Species (Variety)	Lbs. PLS per Acre	Ecological Sites
5	Basin Wildrye (Magnar) Western wheatgrass (Rosanna, Arriba) Bluebunch wheatgrass (Secar) Thickspike wheatgrass (Critana) Fourwing saltbush (Wytana) Alternates: Utah sweetvetch, globemallow	2 3 1 2 1	Foothill Swale, Sandy Swale, Swale Meadow

5. It will be the responsibility of the operator to prevent use by migratory birds of reserve pits that store or are expected to store fluids which may pose a risk to such birds (e.g., migratory waterfowl, shorebirds, wading birds and raptors) during completion and after completion activities have ceased. Methods may include netting, the use of bird-balls, or other alternative methods that effectively prevent use and that meet BLM approval. It will be the responsibility of the operator to notify the BLM of the method that will be used to prevent use two weeks prior to when completion activities are expected to begin. The BLM approved method will be applied within 24 hours after completion activities have begun. All lethal and non-lethal events that involve migratory birds will be reported to the Petroleum Engineer Technician immediately.

6. The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

7. To mitigate surface erosion due to removal of ground cover at the well pad, stockpiled soils must be covered and silt fences will be used on down gradient sides. Following construction flow deflectors and sediment traps (woody debris) will be redistributed over the area along with Native Seed Mix #5. Also, in constructing the access road, proper drainage structures (drain dips, culverts) must be installed to reduce further surface erosion.

8. To mitigate contamination of local ground water, environmentally unfriendly substances (e.g. diesel) must not be allowed to contact soils. The use of impermeable matting under equipment is suggested to intercept such contaminants prior to contacting soils.
Furthermore, all pits must be lined and all wastes associated with construction and drilling will be properly treated and disposed of. Finally, aquifers beneficial for human consumption and livestock encountered during the drilling process must be properly sealed to reduce potential for contamination.

9. The operator will comply with “Gold Book” surface operating standards for constructing well pad and access road which includes revegetating all disturbed surfaces following construction with Native Seed Mix #5 of the White River Resource Area, using flow deflectors and sediment traps (woody debris) to minimize erosive potential of overland flows.

10. To mitigate contamination of soils and local ground water, environmentally unfriendly substances (e.g., diesel) must not be allowed to contact soils. The use of impermeable matting under equipment is suggested to intercept such contaminants prior to contacting soils.

11. Complete reclamation will follow abandonment of well pads. Access roads and well pads will be recontoured and 100% of disturbed surfaces will be revegetated with Native Seed Mix #5.

12. The production casing should be cemented from TD to surface casing to cover the potential gas zones in the Wasatch.

13. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

14. All above ground facilities shall be painted Juniper Green to blend with the surrounding environment.

NAME OF PREPARER: Brett Smithers

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: _____
Acting Field Manager

DATE SIGNED: 6/22/05

ATTACHMENTS: Map of proposed action location.

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Location of Proposed Action
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